

The invention in which an exclusive right is claimed is defined by the following:

1. A method for using a server to establish a trusted session environment in which clients are enabled to establish peer-to-peer communication amongst themselves, comprising the steps of:

(a) using the server to host a session that the clients initially access before establishing the peer-to-peer communication;

(b) checking credentials of each client attempting to access the session hosted by the server, such that only clients whose credentials are approved by the server are permitted access to the session;

(c) providing a first client who has been permitted access to the session with a list identifying one or more other clients currently permitted access to the session;

(d) enabling the first client to select a second client from the list, the second client selected by the first client being indicated to the server; and

(e) transmitting information about the second client from the server to the first client, the information including an address for the second client enabling a peer-to-peer communication to be established between the first client and the second client.

2. The method of Claim 1, wherein:

(a) the step of checking the credentials of each client attempting to access the session comprises the steps of authenticating each client; and authorizing each authenticated client access to specific portions of the session; and

(b) wherein the list provided to the first client identifies only clients authorized to access the same portion of the session as the first client.

3. The method of Claim 2, further comprising the step of changing a client's authorization to access specific portions of the session in response to feedback received by the server about said client's conduct in peer-to-peer communication with other clients of the server.

4. The method of Claim 1, wherein the server provides functionality to clients beyond establishing a trusted session environment in which clients are enabled to establish peer-to-peer communication.

5. The method of Claim 4, wherein the server comprises a game server, and each client accesses the server using a networked game playing computing device.

6. The method of Claim 5, wherein the list of one or more clients provided to the first client includes only clients who are interacting in a gaming environment controlled by the game server.

7. The method of Claim 5, wherein one game playing computing device can support a plurality of different clients.

8. The method of Claim 1, wherein the step of transmitting information about the second client from the server to the first client comprises the step of transmitting the second client's external IP address, any internal IP address associated with the second client, and any port address required for communicating peer-to-peer with the second client.

9. The method of Claim 8, wherein the step of checking the credentials of each client comprises the step of assigning each client a unique user key, and wherein the information about the second client transmitted from the server to the first client includes the second client's user key, thereby assuring the second client that the request to open a peer-to-peer communication with the first client comes from a trusted source.

10. The method of Claim 1, wherein if after receiving the information about the second client, the first client is unable to establish the peer-to-peer communication with the second client, further comprising the steps of:

(a) notifying the server that the attempt by the first client to establish the peer-to-peer communication has failed;

(b) transmitting information about the first client from the server to the second client, the information including an address for the first client enabling a peer-to-peer communication to be established between the first client and the second client; and

(c) requesting the second client to establish a peer-to-peer communication with the first client.

11. The method of Claim 10, wherein if after receiving the information about the first client the second client is unable to establish the peer-to-peer communication with the first client, further comprising the step of routing all communication between the first client and the second client through the server.

12. A memory medium on which are stored machine instructions for carrying out the steps of Claim 1.

13. A system for providing a trusted session environment in which users can establish peer-to-peer communication with other users, comprising:

- (a) a processor; and
- (b) a memory in communication with the processor, said memory storing machine instructions that cause the processor to carry out a plurality of functions, including:
 - (i) screening each user attempting to access a session hosted by the system, by checking credentials of the user, so that only screened users are permitted access to the session;
 - (ii) providing a first screened user with a list including at least one other screened user currently permitted access to the session; and
 - (iii) in response to a request from the first screened user, providing the first screened user with information regarding a second screened user included in the list, the information including any address required for establishing the peer-to-peer communication with the second screened user.

14. The system of Claim 13, wherein the machine instructions further cause the processor to carry out the functions of:

- (a) if notified that an attempt by the first screened user to establish the peer-to-peer communication with the second screened user has failed, providing the second screened user with information regarding the first screened user, the information including any address required for establishing the peer-to-peer communication with the first screened user; and
- (b) requesting the second screened user to establish a peer-to-peer communication with the first screened user.

15. The method of Claim 14, wherein if notified that an attempt by the second screened user to establish the peer-to-peer communication with the first screened user has failed, further comprising the steps of routing all communication between the first screened user and the second screened user through the system.

16. A method for using a server to provide a secure environment that facilitates peer-to-peer communication among clients of the server, comprising the steps of:

- (a) using the server to authenticate and authorize each client before permitting the client access to the secure environment;
- (b) using the server to provide a first client who has been permitted access to the secure environment with an identifier associated with a second client who has also been permitted access to the secure environment; and
- (c) in response to a request by the first client, using the server to provide information to the first client to enable a peer-to-peer communication to be established between the first client and the second client, without requiring further interaction by the server.

17. The method of Claim 16, further comprising the step of assigning each client to a class, such that different access policies are applied by the server to each different class of clients, and wherein the step of using the server to authenticate and authorize each client comprises the step of determining a class to which the client belongs.

18. The method of Claim 17, wherein the step of assigning each client to a class comprises the steps of determining if the client is an anonymous user, and if so, assigning the client predetermined permissions defining the client's authorization to access the secure environment, the permissions defining each anonymous user's authorization enabling one client who is an anonymous user to establish limited peer-to-peer communication with other clients who are not anonymous, such that the other clients act as servers providing the one client one way access to data.

19. The method of Claim 17, wherein the step of assigning each client to a class comprises the steps of determining if the client is a limited authenticated user, and if so, assigning the client predetermined permissions defining the client's authorization to access the secure environment, the predetermined permissions defining each limited authenticated user's authorization so as to enable clients who are limited authenticated users to establish peer-to-peer communication with other clients who have agreed to permit peer-to-peer communication with limited authenticated users.

20. The method of Claim 17, wherein the step of assigning each client to a class comprises the steps of determining if the client is an authenticated user, and if so, assigning the client predetermined permissions defining the client's authorization to access the secure environment, the permissions defining each authenticated user's authorization enabling clients who are authenticated users to establish peer-to-peer communication with other clients who have agreed to permit peer-to-peer communication with authenticated users.

21. The method of Claim 17, wherein the step of assigning each client to a class comprises the steps of determining if the client is a listing entity, and if so, assigning the client predetermined permissions defining the client's authorization to access the secure environment, the permissions defining each listing entity's authorization enable clients who are listing entities to direct communications with other clients based on the class of the other client.

22. The method of Claim 17, wherein the step of using the server to provide the first client the identifier associated with the second client comprises the step of providing the first client only identifiers associated with clients in the same class as the first client.

23. The method of Claim 16, wherein:

(a) the server establishes a plurality of different groups of clients based on a topic of peer-to-peer communication in which those clients wish to engage;

(b) the step of using the server to authenticate each client accessing the server comprises the step of determining each group with which a particular client is associated; and

(c) the step of using the server to provide a first client the identifier associated with the second client comprises the step of providing the first client only identifiers associated with clients sharing at least one group in common with the first client.

24. The method of Claim 16, wherein the step of using the server to authenticate and authorize each client accessing the server comprises at least one of the steps of:

- (a) using a web site sign-in to authorize and authenticate each client;
- (b) using public-key cryptography to authorize and authenticate each client; and
- (c) using a trusted authority to grant tickets used by the clients for authentication.

25. The method of Claim 16, wherein the server provides functionality to clients beyond enabling peer-to-peer communications to be established.

26. The method of Claim 25, wherein the server comprises a game server.

27. The method of Claim 26, wherein the step of using the server to provide the first client the identifier associated with the second client comprises the step of providing the first client identifiers for clients interacting with the first client in a gaming environment controlled by the game server, to enable peer-to-peer communication between the clients and the first client.

28. The method of Claim 16, wherein the information includes the second client's external IP address, any internal IP address associated with the second client, and any port address required for peer-to-peer communication with the second client.

29. The method of Claim 28, wherein the step of using the server to authenticate and authorize each client accessing the server comprises the step of assigning each client a unique user key, and wherein the information includes the second client's user key, thereby assuring the second client that the request to open peer-to-peer communication comes from a trusted source.

30. The method of Claim 28, wherein if after receiving information for the second client, the first client is unable to establish the peer-to-peer communication with the second client, further comprising the steps of:

(a) notifying the server that the attempt by the first client to establish the peer-to-peer communication with the second client has failed;

(b) using the server to provide the second client with information for the first client required to enable the second client to establish a peer-to-peer communication with the first client; and

(c) requesting the second client to establish the peer-to-peer communication with the first client.

31. The method of Claim 30, wherein if after receiving information for the first client, the second client is unable to establish the peer-to-peer communication with the first client, further comprising the step of routing each communication between the first client and second client through the server.

32. A memory medium on which are stored machine instructions for carrying out the steps of Claim 16.

33. A method for enabling players in a massively multiplayer game to communicate with each other in a peer-to-peer relationship so as to substantially reduce a workload of a game server that hosts the massively multiplayer game, comprising the steps of:

(a) requiring each person who wants to participate as a player in playing the massively multiplayer game to first enroll in a game service operating the game server;

(b) authenticating each player attempting to access the game server by determining if the player is enrolled in the game service, so that only persons who have enrolled are allowed to access the game server as a player;

(c) providing a first player a list identifying at least one other player who can interact with the first player in the massively multiplayer game that is hosted by the game server; and

(d) enabling the first player to select a second player from the list, the second player who has been selected being indicated to the game server; and

(e) transmitting information about the second player from the game server to the first player, the information being required for enabling a peer-to-peer communication to be established between the first player and the second player.

34. The method of Claim 33, wherein the step of authenticating each player attempting to access the game server comprises the step of assigning each player a unique user key, and the step of transmitting information about the second player from the server to the first player comprises the step of transmitting the second player's user key, thereby assuring the second player that the request to open the peer-to-peer communication comes from a trusted player participating in the massively multiplayer game hosted by the game server.

35. The method of Claim 33, wherein if after receiving information about the second player, the first player is unable to establish the peer-to-peer communication with the second player, further comprising the steps of:

(a) notifying the game server that the attempt by the first player to establish the peer-to-peer communication has failed;

(b) transmitting information about the first player from the game server to the second player, the information being required for enabling a peer-to-peer communication to be established between the first player and the second player; and

(c) requesting the second player to establish a peer-to-peer communication with the first player.

36. The method of Claim 35, wherein if after receiving information about the first player, the second player is unable to establish the peer-to-peer communication with the first player, further comprising the step of routing each communication between the first player and second player through the game server.

37. A memory medium on which are stored machine instructions for carrying out the steps of Claim 33.

38. A networked game system for providing a gaming environment in which only authorized players are permitted to establish peer-to-peer communication with other authorized players during game play, thereby enhancing game play without requiring resources from the networked game system to manage ongoing communication between players, comprising:

- (a) a processor; and
- (b) a memory in communication with the processor, said memory storing machine instructions that cause the processor to carry out a plurality of functions, including:
 - (i) screening each player attempting to access the gaming environment hosted by the game system, so that only authorized players are allowed access to the gaming environment hosted by the game system;
 - (ii) providing a first authorized player with a list including at least one other authorized player participating in the gaming environment; and
 - (iii) enabling the first authorized player to identify a second authorized player from the list;
 - (iv) transmitting information about the second authorized player from the game system to the first authorized player, the information including any address required to enable the peer-to-peer communication to be established between the first authorized player and the second authorized player.

39. The system of Claim 38, wherein the information includes a user key assigned to the second authorized player by the game system, thereby assuring the second authorized player that the request to open the peer-to-peer communication comes from a trusted player.

40. The system of Claim 38, wherein the machine instructions further cause the processor to carry out the functions of:

(a) if notified that an attempt by the first authorized player to establish the peer-to-peer communication with the second authorized player has failed, providing the second authorized player with information about the first authorized player, the information including any address required to enable the peer-to-peer communication to be established between the first authorized player and the second authorized player; and

(b) requesting the second authorized player to establish the peer-to-peer communication with the first authorized player.

41. A method for using a server to establish a trusted session environment in which clients are enabled to establish peer-to-peer communication amongst themselves, comprising the steps of:

(a) using the server to host a session that the clients initially access before establishing the peer-to-peer communication;

(b) checking credentials of each client attempting to access the session hosted by the server, such that only clients whose credentials are approved by the server are permitted access to the session;

(c) providing a first client who has been permitted access to the session with a list identifying one or more other clients whose credentials are approved by the server;

(d) enabling the first client to select a second client from the list, the second client selected by the first client being indicated to the server; and

(e) transmitting connection information about the second client from the server to the first client, the connection information enabling a peer-to-peer communication to be established between the first client and the second client.

42. The method of Claim 41, wherein if after receiving information about the second client, the first client is unable to establish the peer-to-peer communication with the second client, further comprising the steps of:

(a) notifying the server that the attempt by the first client to establish the peer-to-peer communication has failed;

(b) transmitting information about the first client from the server to the second client, the information being required for enabling a peer-to-peer communication to be established between the first client and the second client; and

(c) requesting the second client to establish a peer-to-peer communication with the first client.

43. The method of Claim 41, wherein if after receiving information about the first client, the second client is unable to establish the peer-to-peer communication with the first client, further comprising the steps of routing each communication between the first client and second client through the server.